# PATENT COOPERATION TREATY

# **PCT**

# TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference  2F04169-PCT			FOR FURTHER ACTION		See Form PCT/IPEA/416				
International application No.			International filing date (day/month/year)		Priority date (day/month/year)				
PCT/JP2004/017408			24.11.2004		03.12.2003				
Internationa	al Patent Classification	 (IPC) or national	classification and IPG						
H05B6/04 (2006. 01), G03G15/20 (2006. 01), H05B6/14 (2006. 01), H05B6/36 (2006. 01)									
Applicant  MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.									
	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.								
2. TI	his REPORT consists o	f a total of 6		sheets, including	g this cover sheet.				
3. TI	his report is also accom	panied by ANNE	EXES, comprising:						
a.	. 🔀 (sent to the ap	pplicant and to th	ne International Bured	uu) a total of 2	sheets, as follows:				
	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).								
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.								
b		nternational Bure	eau only) a total of (in	dicate type and numbe	er of electronic carrier(s))				
, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).									
4. Tl	his report contains indic	cations relating to	the following items:						
	Box No. I	Basis of the repo	ort						
	Box No. II	Priority							
<u> </u>	Box No. III	Non-establishm	ent of opinion with re	gard to novelty, inven	rive step and industrial applicability				
	Box No. IV	Lack of unity of	invention						
	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
	Box No. VI Certain documents cited								
<u> </u>	Box No. VII Certain defects in the international application								
L	Box No. VIII Certain observations on the international application								
Date of submission of the demand			D	ate of completion of th	is report				
Name and mailing address of the IPEA/JP			A	uthorized officer					
Faccimila Va			T	Janhana Na					

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Box	No. I	Basis of the report						
1.		h regard to the language, this report is based on the internatio cated under this item.	nal application in the language in whic	ch it was filed, unless otherwise				
	This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:							
		international search (Rule 12.3 and 23.1(b))						
		publication of the international application (Rule 12.4						
2	With	international preliminary examination (Rule 55.2 and		s which have been furnished to the				
2.	rece	Vith regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to its report):						
		the international application as originally filed/furnished						
	$\bowtie$	the description:						
		pages <u>1-21</u>		as originally filed/furnished				
		pages*	received by this Authority on					
		pages*	received by this Authority on					
	$\boxtimes$	the claims:						
		nos. 2,5-15		as originally filed/furnished				
		nos.*	as amended (together wit	h any statement) under Article 19				
		nos.* _ 1,3,4	received by this Authority on11	.07.2005				
		nos.*	received by this Authority on					
	$\boxtimes$	the drawings:						
				as originally filed/furnished				
			received by this Authority on					
			received by this Authority on					
		a sequence listing and/or any related table(s) – see Supplem	·					
3.		The amendments have resulted in the cancellation of:						
		the description, pages						
		the claims, nos.						
4.		This report has been established as if (some of) the amend they have been considered to go beyond the disclosure as fi	lments annexed to this report and liste	ed below had not been made, since				
		the description, pages						
		the claims, nos.						
		the drawings, sheets/figs						
		the sequence listing (specify):						
		any table(s) related to sequence listing (specify):						
*	If ite	em 4 applies, some or all of those sheets may be marked "sup						

Box		Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
1.	Statement				
	Novelty (N)	Claims	1-15	YES	
		Claims		NO	
	Inventive step (IS)	Claims	8, 9, 11	YES	
		Claims	1-7, 10, 12-15	_ NO	
	Industrial applicability (IA)	Claims	1-15	YES	
		Claims		_ NO	

- 2. Citations and explanations (Rule 70.7)
  - Document 1: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 30619/1989 (Laid-open No. 120797/1990) (Kitashiba Electric Co., Ltd.), 28 September 1990
  - Document 2: JP 2003-17221 A (Ricoh Co., Ltd.), 17 January 2003
  - Document 3: JP 2001-188430 A (Matsushita Electric Industrial Co., Ltd.), 10 July 2001
  - Document 4: JP 8-16006 A (Canon Inc.), 19 January 1996
  - Document 5: JP 2003-91186 A (Fuji Xerox Co., Ltd.), 28

    March 2003

The inventions set forth in claims 1, 6, 7, 10, 12, 14 and 15 do not involve an inventive step in the light of the inventions disclosed in documents 1 and 2 cited in the international search report. Document 2 discloses a heating device for use in an affixing device, said heating device being equipped with: an excitation coil, which has a plurality of conductors wound thereupon; a heat generating member with a rotating member that moves relative to the aforementioned excitation coil, which is heated via electromagnetic induction from the action of

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

the magnetic field that is generated by the aforementioned excitation coil; and a thermostat, which detects when the aforementioned heat generating member reaches an abnormally high temperature. Therein, the conductors of the aforementioned excitation coil are wound parallel the axial direction of the aforementioned rotating member and arranged so as to face the peripheral surface of the aforementioned rotating member, while the aforementioned thermostat is disposed on the same side of the aforementioned heat generating member as the aforementioned excitation coil and is positioned at the center of the windings of the aforementioned excitation coil. Meanwhile, document 1 indicates that the temperature detection means is disposed between the winding bundles of the excitation coil. Such being the case, it would have been easy for a person skilled in the art to configure the inventions set forth in claims 1, 6, 7, 10, 12, 14 and 15 by disposing the thermostat from the invention disclosed in document 2 between the winding bundles of the excitation coil, like in the invention disclosed in document 1. Furthermore, the fact that it is necessary to prevent the temperature detection means of an induction heater from generating heat itself and the fact that it is necessary to decrease the effects of magnetic fluxes are well known.

The invention set forth in claim 2 does not involve an inventive step in the light of the inventions disclosed in documents 1 and 2, and document 3 cited in the international search report. Document 3 discloses a heating device equipped with a center core, which is configured from a ferromagnetic member that is disposed at the center of the windings of the excitation coil, and

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side cores, which are configured from ferromagnetic members that are disposed on the outsides of the winding bundles of the aforementioned excitation coil. Such being the case, it would have been easy for a person skilled in the art to configure the invention set forth in claim 2 by applying a center core and side cores like those disclosed in document 3 and applying the technical feature disclosed in document 1, wherein the temperature detection means is disposed between the winding bundles of the excitation coil, in the invention disclosed in document 2.

The inventions set forth in claims 3, 4 and 13 do not involve an inventive step in the light of the inventions disclosed in documents 2 and 3, and document 4 cited in the international search report. Document 4 discloses a heating device wherein the means for detecting abnormal temperatures is sandwiched between the core and the excitation coil by means of the side parts of the winding bundles of the excitation coil.

Furthermore, a person skilled in the art could reposition the center core to a location outside the center of the windings of the excitation coil, as appropriate. Such being the case, it would have been easy for a person skilled in the art to configure the inventions set forth in claims 3, 4 and 13 in the light of the inventions disclosed in documents 2 to 4.

The invention set forth in claim 5 does not involve an inventive step in the light of the inventions disclosed in documents 1 and 2, and document 5 cited in the international search report. Document 5 discloses a heating device equipped with an opposed core for forming a magnetic path, which is disposed on the opposite side

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of the heat generating member from the excitation core. Such being the case, it would have been easy for a person skilled in the art to configure the invention set forth in claim 5 in the light of the inventions disclosed in documents 1, 2 and 5.

The inventions set forth in claims 8, 9 and 11 are not disclosed in any of the documents that are cited in the international search report, and would not have been obvious to a person skilled in the art.